

WHAT IS CLAIMED IS:

1. An Internet telephone apparatus connected to a server, the server storing an IP address corresponding to a telephone number of a call destination, a plurality of telephone apparatuses being associated with the call destination, the Internet telephone apparatus comprising:

a controller configured to transmit the telephone number of the call destination to the server, to receive an IP address corresponding to the telephone number of the call destination from the server, and to access the call destination for a call over the Internet based on the IP address;

said controller, when a predetermined symbol is detected in the IP address, converts the predetermined symbol into a numeric value, and accesses a predetermined one of the plurality of telephone apparatuses associated with the call destination based on the IP address including the numeric value; and

said controller, when the predetermined telephone apparatus of the call destination is unavailable, reconverts the predetermined symbol into another numeric value, and accesses another telephone apparatus of the plurality of telephone apparatuses based on the IP address including the another numeric value without user intervention at the Internet telephone apparatus.

2. The Internet telephone apparatus according to claim 1, wherein the predetermined symbol is included in a host address of the IP address.

3. The Internet telephone apparatus according to claim 2, wherein the host address is the fifth octet of the IP address.

4. The Internet telephone apparatus according to claim 1, wherein the controller receives the IP address including the predetermined symbol from the server, when the controller transmits, to the server, a telephone number indicating all of the telephone apparatuses associated with the call destination.

5. An Internet telephone apparatus connected to a server, the server storing an IP address corresponding to a telephone number of a call destination, a plurality of

telephone apparatuses being associated with the call destination, the Internet telephone comprising:

a controller configured to transmit the telephone number of the call destination to the server, to receive an IP address corresponding to the call destination from the server, and to access the call destination for a call over the Internet based on the IP address;

said controller, when a predetermined symbol and range information are detected in the IP address, converts the predetermined symbol into a numeric value, and accesses a predetermined one of the plurality of telephone apparatuses associated with the call destination based on the IP address including the numeric value, the range information indicating a range of numeric values into which the predetermined symbol can be converted; and

said controller, when the predetermined telephone apparatus of the call destination is unavailable, reconverts the predetermined symbol into another numeric value within the range, and accesses another telephone apparatus of the plurality of telephone apparatuses based on the IP address including the another numeric value without user intervention at the Internet telephone apparatus.

6. The Internet telephone apparatus according to claim 5, wherein the predetermined symbol is included in a host address of the IP address.

7. The Internet telephone apparatus according to claim 5, wherein the controller receives, from the server, the IP address including the predetermined symbol and the range information, when the controller transmits, to the server, a telephone number indicating that the Internet telephone apparatus automatically and sequentially accesses the plurality of telephone apparatuses associated with the call destination.

8. The Internet telephone apparatus according to claim 5, wherein the controller receives, from the server, the IP address including the predetermined symbol and the range information, when the controller transmits, to the server, a telephone number indicating all of the telephone apparatuses associated with the call destination.

9. The Internet telephone apparatus according to claim 8, wherein the controller first accesses a telephone apparatus associated with the call destination based on a starting IP address of the range;

said controller, when the accessed telephone apparatus is unavailable, sequentially accesses a next telephone apparatus associated with the call destination until reaching a telephone apparatus corresponding to the last IP address of the range;

10. The Internet telephone apparatus according to claim 5, wherein the controller receives, from the server, the IP address including the predetermined symbol and the range information, when the controller transmits, to the server, a telephone number indicating a telephone apparatuses associated with the call destination.

11. The Internet telephone apparatus according to claim 10, wherein the controller first accesses a telephone apparatus of the recipient based on an IP address corresponding to the telephone number which the Internet telephone apparatus indicates;

said controller, when the first accessed telephone apparatus is unavailable, searches for an available telephone apparatus by sequentially accessing a next telephone apparatus associated with the call destination until a telephone apparatus corresponding to the last IP address of the range is reached;

said controller accesses a telephone apparatus corresponding to the starting IP address of the range after accessing the last IP address of the range and the last IP address of the range is unavailable;

said controller, when the telephone apparatus corresponding to the starting IP address is unavailable, searches for an available telephone apparatus by sequentially accessing a next telephone apparatus until the telephone apparatus immediately before the first accessed telephone apparatus is reached.

12. A adapter for an Internet telephone, connected to an telephone apparatus and to a server, the server storing an IP address corresponding to a telephone number of a call destination, a plurality of telephone apparatuses being associated with the call destination, the adapter comprising:

a connector configured to connect to the Internet telephone apparatus;

a controller configured to receive the telephone number of the call destination from the telephone apparatus, to transmit the telephone number of the call destination to the server, to receive the IP address corresponding to the telephone number from the server, and to access the call destination for a call over the Internet based on the IP address;

said controller, when a predetermined symbol is detected in the IP address, converts the predetermined symbol into a numeric value, and accesses a predetermined one of the plurality of telephone apparatuses associated with the call destination based on the IP address including the numeric value; and

said controller, when the predetermined telephone apparatus of the call destination is unavailable, reconverts the predetermined symbol into another numeric value, and accesses another telephone apparatus of the plurality of telephone apparatuses based on the IP address including the another numeric value without user intervention at the calling telephone apparatus.

13. An adapter for a Internet telephone, connected to an telephone apparatus and to a server, the server storing an IP address corresponding to a telephone number of a call destination, a plurality of telephone apparatuses being associated with the call destination, the adapter comprising:

a connector configured to connect to the Internet telephone apparatus;

a controller configured to receive the telephone number of the call destination from the telephone apparatus, to transmit the telephone number of the call destination to the server, to receive the IP address corresponding to the telephone number from the server, and to access a telephone apparatus of the call destination for a call over the Internet based on the IP address;

said controller, when a predetermined symbol and range information are detected in the IP address, converts the predetermined symbol into a numeric value, and accesses a predetermined one of the plurality of telephone apparatuses associated with the call destination based on the IP address including the numeric value, the range information

indicating a range of numeric values into which the predetermined symbol can be converted; and

said controller, when the predetermined telephone apparatus of the call destination is unavailable, reconverts the predetermined symbol into another numeric value within the range, and accesses another telephone apparatus of the plurality of the telephone apparatuses based on the IP address including the another numeric value without user intervention at the calling telephone apparatus.

14. A server for an Internet telephone communication comprising:

a interface configured to connect to an calling telephone apparatus and to a telephone apparatus of a call destination, a plurality of telephone apparatuses being associated with the call destination;

a memory configured to store an IP address corresponding to a telephone number of the call destination;

a controller configured to receive the telephone number of the call destination from the calling telephone apparatus, to search the memory for the IP address corresponding to the telephone number of the call destination, and to transmit the IP address to the calling telephone apparatus;

said controller inserts a predetermined symbol into the IP address, the predetermined symbol instructing the calling telephone apparatus to automatically access another telephone apparatus associated with the call destination without user intervention at the calling telephone apparatus when a predetermined telephone apparatus corresponding to the telephone number of the call destination is unavailable.

15. A server for an Internet telephone communication comprising:

a interface configured to connect to an calling telephone apparatus and to a telephone apparatus of a call destination, a plurality of telephone apparatuses being associated with the call destination;

a memory configured to store an IP address corresponding to a telephone number of the call destination;

a controller configured to receive the telephone number of the call destination from the calling telephone apparatus, to search the memory for the IP address corresponding to the telephone number, and to transmit the IP address to the calling telephone apparatus;

said controller inserts a predetermined symbol and range information into the IP address, the predetermined symbol instructing the calling telephone apparatus to automatically access another telephone apparatus associated with the call destination without user intervention at the calling telephone apparatus when a predetermined telephone apparatus corresponding to the telephone number of the call destination is unavailable, and the range information indicating a range of telephone apparatuses of the call destination which the calling telephone apparatus automatically accesses when the predetermined telephone apparatus corresponding to the telephone number of the call destination is unavailable.

16. An Internet telephone system having a calling telephone apparatus, a server, and a telephone apparatus of a call destination, the Internet telephone system comprising:
the server configured to store an IP address corresponding to the called telephone number of the call destination, a plurality of telephone apparatuses being associated with the call destination;

the calling telephone apparatus configured to transmit the telephone number of the call destination to the server, to receive the IP address corresponding to the telephone number from the server, and to access the called telephone apparatus of the call destination based on the IP address;

said calling telephone apparatus, when a predetermined symbol is detected in the IP address, converts the predetermined symbol into a numeric value, and accesses a predetermined one of the plurality of telephone apparatuses associated with the call destination over the Internet based on the IP address including the numeric value; and

said calling telephone apparatus, when the predetermined telephone apparatus of the call destination is unavailable, reconverts the predetermined symbol into another numeric value, and access another telephone apparatus of the plurality of the telephone

apparatuses based on the IP address including the another numeric value without user intervention at the Internet telephone apparatus.

17. An Internet telephone system having a calling telephone apparatus, a server, and a telephone apparatus of a call destination, the Internet telephone system comprising:

the server configured to store an IP address corresponding to the telephone number of the call destination, a plurality of telephone apparatuses being associated with the call destination;

the calling telephone apparatus configured to transmit the telephone number of the call destination to the server, to receive the IP address corresponding to the telephone number from the server, and to access the telephone apparatus of the call destination over the Internet based on the IP address;

said calling telephone apparatus, when a predetermined symbol and range information are detected in the IP address, converts the predetermined symbol into a numeric value, and accesses a predetermined one of the plurality of telephone apparatuses associated with the call destination based on the IP address including the numeric value, the range information indicating a range of numeric values into which the predetermined symbol can be converted; and

said calling telephone apparatus, when the predetermined telephone apparatus of the call destination is unavailable, reconverts the predetermined symbol into another numeric value within the range, and accesses another telephone apparatus of the plurality of telephone apparatuses based on the IP address including the another numeric value without user intervention at the Internet telephone apparatus.

18. A control method for controlling an Internet telephone apparatus, the Internet telephone apparatus connected to a server, the server storing an IP address corresponding to a telephone number of a call destination, a plurality of telephone apparatuses being associated with a call destination, the control method comprising:

transmitting the telephone number of the call destination to the server;

receiving the IP address corresponding to the telephone number from the server;

detecting a predetermined symbol in the IP address;

converting the predetermined symbol into a numeric value when the predetermined symbol is detected in the IP address;

accessing a predetermined one of the plurality of telephone apparatuses associated with the call destination over the Internet based on the IP address including the numeric value;

reconverting the predetermined symbol into another numeric value when the predetermined telephone apparatus of the recipient is unavailable;

accessing another telephone apparatus of the plurality of telephone apparatuses based on the IP address including the another numeric value without user intervention at the Internet telephone apparatus.

19. A control method for controlling an Internet telephone apparatus, the Internet telephone apparatus connected to a server, the server storing an IP address corresponding to a telephone number of a call destination, a plurality of telephone apparatuses being associated with a call destination, the control method comprising:

transmitting the telephone number of the call destination to the server;

receiving the IP address corresponding to the telephone number from the server;

detecting the predetermined symbol in the IP address;

converting a predetermined symbol into a numeric value when the predetermined symbol and range information are detected in the IP address, the range information indicating a range of numeric value into which the predetermined symbol can be converted;

accessing a predetermined one of the plurality of telephone apparatuses associated with the call destination over the Internet based on the IP address including the numeric value;

reconverting the predetermined symbol into another numeric value within the range when the predetermined telephone apparatus of the call destination is unavailable;

accessing another telephone apparatus of the plurality of telephone apparatuses based on the IP address including the another numeric value without user intervention at the Internet telephone apparatus.